Applicants Response:

In FIG. 1, the shock mount originally designated as "14" has been changed to "17" to avoid confusion with the console originally designated as "14". In FIG. 2, the operator and equipment platform designated as "10" now includes reference sign "$M_2$" to indicate the mass thereof, and the ship designated as "30" now includes reference sign "$M_1$" to indicate the mass thereof. The specification has been corrected in one instance to change the deck designation from "10" to "20" for internal consistency. Applicant holds that the proposed corrections overcome the objection to the drawings.

Specification

The Office stated:
The disclosure is objected to because of the following informalities:

1. Page 2, line 1, both the title of the invention and ---BACKGROUND OF THE INVENTION--- should be inserted as headings on separate lines preceding the heading "FIELD OF THE INVENTION".
2. Page 2 ,line 6, "BACKGROUND OF THE INVENTION" should be replaced with --- DESCRIPTION OF THE RELATED ART ---,
3. Page 3, line 11 "g" should be spelled out.
4. Page 4, line 1, should be deleted.

The disclosure is objected to because reference character "10" has been used to designate both a "deck" and "equipment platform" on page 5, line 23 and page 7, lines 17-18 respectively. Correction is required.

Applicant's response:

The title and various headings of the application have been corrected to conform to the requirements set forth by the Office. The term "g" has been spelled out as "gravitational". The shock mount originally designated as "14" has been changed to "17" through out the specification to avoid confusion with the console originally designated as "14". The

specification has been corrected in one instance to change the deck designation from "10" to "20" for internal consistency. Applicant holds that these specification corrections overcome the objection to the specification.

35 U.S.C. § 112 First Paragraph-Enablement

The office stated:
The office has rejected claim 10 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such away as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 10, line 1, recites that an "operator station includes a foot deck." Page 9, line 2 of the specification states a "platform 40 comprising a foot deck 41." The specification is not enabling for claim 10 because it discloses a platform having a foot deck and not the actual operator station including a foot deck. Examiner believes applicant intended to claim a platform having a foot deck and will examine the claim accordingly. Correction is required.

Applicant's response:
The applicant has amended the claim 10 to delete "operator station" and to recite "unitary platform" to overcome this § 112 rejection. Withdrawal of the rejection of claim 10 under § 112, First Paragraph, is respectfully requested.

35 U.S.C. § 102-Anticipation
The office stated:
The Office has rejected claims 8-13 and 15-17 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,277,584 to DeGroat et al. Claim 10, as best understood, is rejected because DeGroat et al. discloses a shock-isolation system S including a unitary metal platform 12,23 with an operator station 21 thereon, a first mounting member (which is the parts of 23 supporting 25) and a shock mount 10,16,18,34,36,38-39,40-43 wherein the system is only supported by the shock mount (note Fig. 2). See also DeGroat et al. column 6, lines 24-29.

DeGroat also discloses that the platform includes a foot deck which is the area of platform located between the operator station 21 and first mounting member (note Fig. 1). Furthermore, DeGroat et al. discloses that the platform includes an upright wall (which is the wall of 23 that extends upward from 12 and supports 54) having the first mounting member (note Fig. 2). Finally, DeGroat et al. discloses that the shock mount provides vibration damping, isolates the operator station and platform from shock and vibration, and dampens vibration and shock.

Applicant's response:

The present invention of claim 8 is a shock-isolation system for isolation of shocks from a supporting structure including a unitary platform, said unitary platform having an operator station thereon. The system includes a first mounting member for rigidly securing a console to said unitary platform, and a shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount. The unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks with the operator station and the unitary platform further inhibiting opportunity for operator injury by simultaneously preventing the operator station and the unitary platform from moving relative to one another.

With respect to claim 8, the DeGroat reference discloses a vehicle vibration simulator with a base (10) that rests on four inflatable pods (40-43), with the pods contacting a stationary surface. A frame (12) is supported above the base (10) by a plurality of springs (16), each spring end retained in a separate sleeve (18, 20), and fluid cylinders (34, 36, 38 and 39) for tilting the frame (12) relative to the base (10). The pods (40-43) inflate and deflate for tilting the base (10) relative to the stationary surface. The frame (12) also includes a vibrator (44) for vibrating the frame (12), while the base (10) includes another vibrator (46) for transmitting vibration from the base (10) to the frame (12) vial the springs (16).

The Office equates the shock mount of the present invention, shock attachments 12, 13 and 17, with the elements 10 (base), 16 (springs), 18 (spring sleeves), 34,36,38-39 (fluid cylinders), and 40-43 (pods) of the DeGroat et al. reference, and the unitary platform 11 of the present invention with the element 12 (frame) of the reference. As noted above for the present invention, the shock mount supports said unitary platform in a condition where the unitary platform is free to remain spatially fixed, thereby isolating the unitary platform from the effects of high "g" shocks to the supporting structure. The DeGroat et al. reference states that the fluid cylinders connected between the base 10 and frame 12 expand and contract to move the frame relative to the base and cause pivoting relative to either the Y or X axes (Column 6, lines 38-45). Thus, the fluid cylinders 34,36,38-39 form a rigid connection between the frame 12 and base 10 in order to provide such pivoting. Consequently, the DeGroat et al. reference shows a rigid connection between the shock mount and the unitary platform. Indeed, the reference states that vibration and pivoting about an axis are purposely transmitted by the various elements equated to the shock mount of the present invention. Consequently, the DeGroat et al. elements cannot function as a shock mount and cannot be considered as such. The Office's holding that "DeGroat et al. discloses that the shock mount provides vibration damping, isolates the operator station and platform from shock and vibration, and dampens vibration and shock" is in direct opposition to the teachings of the reference. Shock and vibration are purposely transmitted to the DeGroate et al. operator station and platform to subject an operator positioned thereupon to these abusive factors. Applicants teaching is contrary since they isolate an operator and equipment from shock and vibritation.

Applicant thus holds that the DeGroat et al. reference does not disclose, teach or suggest the present invention of independent claim 8 and that the rejection of claim 8 is incorrect and should be withdrawn. Therefore, applicant holds that claim 8 is patentable and that claims 9-13 and 15-17 are also patentable in that these claims impose further limitations to a patentable independent claim.

35 U.S.C. § 103-Obviousness

The Office stated:

The Office has rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over DeGroat et al. DeGroat et al. Discloses the invention substantially as claimed and as applied to the claims above. However, DeGroat et al. does not disclose that the unitary platform has a surface area of about 20 to 30 square feet. It is common knowledge in the prior art to have made a platform with a surface area of about 20 to 30 feet for the purpose of supporting various size objects thereon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the DeGroat et al. platform with a surface area of about 20 to 30 feet in order to support a larger size operator station and other various sized structures.

Applicant's response:

As put forth above, applicant thus holds that since the DeGroat et al. reference is a contrary teaching it does not disclose, teach or suggest the present invention of claim 8 and that claim 8 is patentable. Therefore, applicant holds that since claim 8 is patentable, thus claim 14 is also patentable in that claim 14 imposes further limitations to a patentable claim. Applicant holds that the rejection of claim 14 is incorrect and should be withdrawn.

Applicant has reviewed the references U.S. Patent 4,121,393 to Renault et al., U.S. Patent 4,565,039 to Oguro et al., U.S. Patent 5,601,433 to Potter et al., and U.S. Patent 5,716,037 to Haak. None are believed to be more pertinent to applicant's disclosure than the cited DeGroat et al. U.S. Patent 5,277,584.

**Marked Up Specification**

The paragraph beginning at page 2, line 17:

In contrast to the commercial and pleasure vehicles which can weigh a few tons, there is a second category of heavier equipment that weighs thousands of tons. In addition, the heavier equipment, which includes combat vehicles such as ships, submarines, tanks and the like is generally supported directly in the water or directly on a land surface with no air cushion. While designers of personal and commercial craft have relied on the combination of air inflatable tires and shock and vibration supports to minimize vibration and shock to the operator, the designers of large water craft, such as military battleships, cannot. Instead, the large mass of the ship is used to partially isolate the operator and the operator's equipment from damage. That is, since the ships are so massive the mass of the ship can absorb a large impact before it is felt by a ship operator or a ship console. In order to further protect the electronic consoles on the large combat ships from the effects of impacts from high gravitational ("g") explosive shocks caused by artillery, bombs, torpedoes or the like as well as from vibration, each of the consoles of the large ships are generally mounted with a set of shock supports that isolate the electronic console from the deck of the ship. It should be pointed out that by explosive shocks it is generally meant to mean shocks which may impart in excess of 5 g's for a duration of 100 milliseconds or more. It is these type of high impact shocks that can cause havoc often resulting in operator injury caused by impact with the console or the deck of the equipment.

The paragraph beginning at page 5, line 21:

Figure 1 shows a cross-sectional view of a portion of a ship deck with a console 14 and a console operator station 15 comprising a chair 16 supported by a unitary rigid deck platform 11 with the deck platform 11 mounted substantially coextensive with deck 20 [10] to provide operator access thereto. Typically, console 14 contains electronic

equipment such as monitors, computers and the like which are normally individually isolated from a supporting platform by shock and vibration mounts within the console.

The paragraph beginning at page 6, line 20:

The operator platform 11 is supported by shock mounts 12, 13 and 17 [14] which isolate high "g" shocks present in ship deck 20. While the isolation of the operator from high "g" shocks using only shock absorbers is known, it should be understood that oftentimes shock absorbers are incorporated with vibration dampers so that both shock and vibration can be inhibited in the same mounting device. Thus, the invention is usable with either shock supports alone or shock supports that include vibration attenuators or absorbers. If the shock supports are sufficiently responsive in relation to the inertia of the support platform, the support platform can maintain a substantially fixed spatial orientation, which further lessens the opportunity of injury to the operator since the operator will not normally be fixedly secured to the support platform.

The paragraph beginning at page 7, line 20:

Ship 30 is shown receiving impacts from a bomb explosion 37 and about to receive further impacts from explosions of bombs 35 and 36. In conventional systems the mass MI of the ship is sufficiently large so as to absorb many impacts without disrupting either an operator or an operator control station. However, impacts do occur which do not destroy the ship but are sufficiently great so that the mass of the ship cannot effectively protect the operator or the operator equipment. In order to respond to these type of hits, previous designs taught the construction of consoles that were isolated from the deck 20 by individual vibration and shock mounts. One of the adverse side effects was that the operators who are standing or sitting on the deck might be hit by either the deck or the console or both as the console responds to an impact. The present invention minimizes operator injury by rigidly coupling the operator control station to the operator console so

as to prevent relative movement therebetween. The present provides a four-fold effect: first, the large mass disparity between the ship 30 and the operator platform 11 provides a damping effect on forces transmitted to frame 26; second, the displacement forces on frame 26 are damped by vibration and shock mounts 12, 13 and 17 [14] which serve to attenuate the forces to platform 11; third, if displacement forces are sufficiently large so as not to be effectively diminished by vibration and shock mounts 12, 13 and 17 [14], the coupling of the operator platform 15 to the console with the operator 9 being supported by the platform 11 minimize the chances of injury to the operator 9 due to relative displacement of the equipment with respect to the operator; and fourth, the inertia of the platform and the spaced mounting of the platform 11 from the deck 22 helps maintain the platform in momentarily fixed spatially position so that the operator, who is not fixedly secured to the platform 11, is not thrown into or from the platform.

The paragraph beginning at page 8, line 21:

In the embodiment shown, the platform 11 is spaced from the ship frame 26 and solely supported therefrom by a shock mount that includes shock attachments 12,13 and 17 [14], Typically, the platform is made of metal and for a single operator the unitary platform can have a surface area of 20 to 30 square feet.

The paragraph beginning at page 9, line 11:

The present invention provides a combat shock-isolation system for isolating the effects of explosion shocks that could imperil the operation of a ship which is directly supported by a substantially incompressible medium such as a body of water. The ship has a first mass with the ship having a deck thereon. Located thereon is a deck platform having a second mass substantially less than the first mass. The deck platform is spacedly mounted from the deck so as to permit relative displacement between the deck and the ship without contact therebetween. Located on the deck platform is a console which is fixedly mounted on deck

platform so as to move with the deck platform. Also located on the deck platform is a console-operator station, which is also fixedly mounted to the deck platform so as to move with the deck platform 11 with the console-operator station mounted proximate the console 14 to enable an operator in the console-operator station 15 to interact with the console. The deck platform 11 is solely supported by a shock mount comprising shock attachments 12, 13 and 17 [14] which is connected to the deck platform and to the ship to support the deck platform 11 so that an explosion shock received by the ship is simultaneously isolated from both the console-operator station and the console by the shock mount supporting the deck platform to thereby prevent the console-operator station and the console to move in relation to each other and thereby minimize injury to the operator thereon.

**Marked Up Claims:**

8. (Once Amended) A shock-isolation system for isolation of shocks from a supporting structure comprising:

a unitary platform, said unitary platform having an operator [stationthereon] station thereon;

a first mounting member for rigidly securing a console to said unitary platform;

a shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount so that the unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks with the operator station and the unitary platform further inhibiting opportunity for operator injury by simultaneously preventing the operator station and the unitary platform from moving relative to one another.

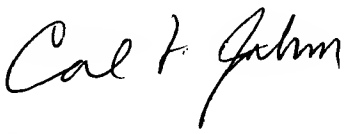
10. (Once Amended) The shock-isolation system of claim 9 wherein the unitary platform [operator station] includes a foot deck for an operator.

12. (Once Amended) The shock-isolation system of claim 11 wherein the unitary platform includes [incudes] an upright wall with said upright wall including the first mounting member.

**Conclusion:**

Reconsideration of the rejection is earnestly solicited, and it is submitted that the applicant has overcome the rejection of claim 10 under 35 U.S.C. 112, first paragraph. The applicant has also overcome the rejection of claims 8-17 under 35 U.S.C. 102 and 103. The applicant thus holds that amended claims 8-17 are in allowable form, and a Notice of Allowance for these claims is respectfully requested.

Respectfully submitted,
JACOBSON AND JOHNSON



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